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ability to extricate itself from the sand to occupy a position on the surface.

Diatoms, from their constitution, are admirably adapted as food for the beach-clam, oyster, and other lamellibranch mollusks. They are crystal cases containing besides the endochrome, a quantity of colorless protoplasm, and considerable drops of oil. They might be likened to boat loads of corn, meat, and oil. In the materials of the commencement of the intestine of clams and oysters, Prof. L. had observed the diatoms with the contents in various conditions of change due to digestion; and in the materials of the rectum, the diatoms were empty or had been deprived of their contents.

In several beach-clams examined, among the matter of the intestine, Prof. L. had observed what he at first supposed to be the shell of a difflugian, but which he since suspected to be that of a ciliated infusorian, *Tintinnus*. In form and construction the shell resembles that of *T. annulatus* (Fig. 2, pl. 9, vol. i., Etudes sur les Infusoires, etc., Claparede and Lachmann). Its length was 0.78 to 0.12 mm., the breadth 0.024 to 0.036 mm.

The *Amphiprora constricta* above referred to was from 0.078 to 0.09 mm. long, 0.024 broad, and 0.012 mm. thick.

Irritable or Sensitive Stamens.—Mr. THOMAS MEEHAN remarked on the large list of plants now known that exhibited an irritative motion in some of their parts. A few years ago there were few in the list besides the Sensitive plant and the Venus fly-trap; now there were many scores of similar cases known, though chiefly as regards the stamens or portions of the pistils. He had already placed on record a large number of instances in plants of the orders *Bignoniaceæ*, *Scrophulariaceæ*, and *Acanthaceæ*, and he had found so many cases that he thought wherever there were bilobed flattened stigmas in these orders, we might expect to find this sensitiveness to touch exhibited in a greater or less degree. In regard to stamens, it was well known that in *Opuntia*, a family of *Cactaceæ*, the stamens moved in various directions when touched, and it was very remarkable that no such motion had been observed in *Cereus*, *Mammillaria*, and other allied genera of the order. Having noted a similar motion in the stamens of the common garden *Portulaca grandiflora*, he was led to look for and to find a similar motion in the Purslane, *Portulaca oleracea*. Examining another Portulacaceous plant, *Talinum teretifolium*, last year, he could find no trace of motion, but when on his recent journey south, he found growing in the Botanic Garden of Mr. Henry Shaw, of St. Louis, a West Indian species, *Talinum patens*, in which the expanded stamens fell down on the petals when touched. It was remarkable that this power should exist in *T. patens* and not in *T. teretifolium*, though some approach to this exceptional character was already noted in the genera, though not among the species of *Cactaceæ*.

The objects of these movements may yet form an interesting study. In *Dionæa*, *Drosera*, and some others, the motion had been found to result in some immediate benefit to the plant; in *Mimosa*, *Hedysarum*, and others, no such immediate benefit had been suggested. In the case of sensitive stigmas it had been supposed to have some reference to arrangements for cross-fertilization. But this was doubtful for the following reasons: In the case of *Mimulus ringens* the stigmas expanded, and the anthers dispersed their pollen before the corolla was quite open, and pollen might be generally found on the stigmatic surfaces when the mouth exposed these parts to view. In *Tecoma radicans*, on the other hand, the lobes of the pistil did not expand till some time after the mouth of the corolla was open. In many cases pollen-hunting bees had carried away all the pollen before these lobes expanded. In cases where the expanded lobes and dispersing pollen were simultaneous, it was theoretically supposed that a bee or insect touched the lobes with its pollen-covered head or back, and that the lobes then closed against the admission of pollen on the withdrawal of the insect from the flower. But he had found that the bees in the cases observed by him occupied but from three to five seconds in visiting a flower, while it took from thirty to sixty seconds for the lobes to close, and then they were seldom so completely closed as to render the reception of fresh pollen difficult. He thought from these and other facts that the hypothesis in relation to cross fertilization was untenable, and that the real use of this motion in the economy of nature was an open and yet promising field to the future investigator.

SEPTEMBER 24.

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-seven persons present.

Henry C. Wood, M.D., Francis X. Dercum, M.D., Henry A. Green, and E. Gybbon-Spilsbury were elected members.

The following was ordered to be published:—